

Telephone Interview Agenda

Application: 10/717,941

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Differences between the present invention and the cited prior art

Talati (2004/0044997) teaches downloading new code to a shadow area and then copying the new code over old code in a runtime area.

Dmitriev teaches class and data evolution where multiple instances of a class may exist.

The present invention loads a new code image to a temporary memory location, identifies and reconciles incompatibilities between old code and new code **from the new code image**, and loads the new code image. The present invention is distinguished in identifying incompatibilities from initialization differences and size and location differences, and in reconciling incompatibilities by changing an initialization order, converting data structure formats, and associating persistent data.

Proposed Amendment

1. An apparatus for updating a code image, comprising:

a processor executing executable code stored on a memory occupied by and used by an old code image and a temporary memory separate from the memory storage device, the executable code comprising

a loader stored in the memory and configured to loading a new code image into ~~[[a]]the temporary memory location separate from a memory space occupied by and used by an old code image;~~

a branch module stored in the memory causing the processor to execute a bootstrap module within the new code image;

~~[[a]]the bootstrap logic module configured to identifying incompatibilities~~ between the old code image and the new code image from version information, a

difference in initialization requirements, and a difference in size and location between the old code image and the new code image, and by accessing capability information for the old code image and capability information for the new code image and identifying a difference between the capability information[[]], and

a bootstrap module, within the new code image, configured to reconcile[[c]]ing the incompatibilities by changing an initialization order, and converting a format of a data structure of the old code image to a format compatible with a data structure of the new code image, and associating persistent data of the old code image with the new code image; and

a copy module configured to copying the new code image into the memory space occupied by the old code image.

31. (Previously Presented) The apparatus of claim 1, wherein the loader configures the temporary memory so that the executable code may be executed directly from the temporary memory, an update module stored in the memory maintaining an old code image pointer, a new code image pointer, capability fields storing the capability information, an old code image version number, a new code image version number, the old code image pointer, the new code image pointer, the capability fields, the old code image version number, and the new code image version number used by the bootstrap module, wherein the bootstrap module follows the old code image pointer to locate an old code image header and a version field within the old code image header and follows the new code image pointer to locate a new code image header and a version field within the new code image header, the old code image header and the new code image header are organized according to the Microcode Reconstruct and Boot format, the

bootstrap module reading the capability information from the old code image and the new code image and storing the capability information of the old code image and the new code image in the capability fields, the capability information comprising an indication that an EMULEX FLASH RAM is provided, the persistent data comprising login tables, identifying incompatibilities between the old code image and the new code image further comprises accessing capability information for the old code image and capability information for the new code image and identifying a difference between the capability information and wherein reconciling incompatibilities between the old code image and the new code image further comprises adjusting configuration settings and parameter lists.